

THE INDO-CHINESE AND OCEANIC RACES— TYPES AND AFFINITIES

I.

THE ethnological area here under consideration comprises the south-eastern corner of the Asiatic mainland, and nearly the whole of the Indian and Pacific Oceans. Of the three great divisions of the human family—the black, yellow, and fair—the two former alone are usually supposed to be represented in this region, the black by the Australians, extinct Tasmanians, Melanésians or Papûans, and Negritos, the yellow by the Indo-Chinese (Annamese, Siamese, Burmese, &c.), of the mainland, and the so-called “Malayo-Polynesians” of Oceania. But it will be one of the main objects of these papers to show that room must here be henceforth made for the third also, and that most of the difficulties associated with the mutual classification of the other two are due to the omission or neglect of this third factor in the problem. It has long been an accepted doctrine of ethnologists that this fair or Caucasian type, using the term “Caucasian” in Blumenbach’s sense, is limited by some mysterious law of nature or providential arrangement to the western portion of Asia, to the northern section of its African, and to nearly the whole of its European peninsula. But anthropology is a very young science, and as facts accumulate and knowledge expands, many of its conclusions too hastily arrived at will have to be modified or abandoned. The time seems to have already arrived for very materially modifying the views hitherto entertained regarding the geographical limits of the Caucasian species, which, instead of being confined to a western corner of the Old World, will be found to have been diffused in prehistoric times eastwards to within 2,500 miles of the American continent.

But the acceptance or rejection of this new doctrine will of course depend largely on the various senses in which the terms type, species, race, are understood by the different monogenist and polygenist schools. For the orthodox monogenist these words can obviously have but a relative meaning, for if all are necessarily sprung of one created pair, all have also necessarily become differentiated into the now existing types, these types thus sinking to the category of mere varieties. But to polygenists of all shades such expressions may naturally convey an absolute sense, the fundamental species now existing having presumably been evolved in so many independent centres, and for these the only question will be in *how many* centres? Yet even they cannot consistently base their theory on the eternal fixity of species, for they are all of them otherwise, and necessarily believers in evolution. They must therefore admit the abstract possibility of such comparatively slight transformism as the development of the dark from the yellow, the fair from either, lank from woolly hair, dolichocephaly from brachycephaly, the tall stature of the Tehuelch Patagonian from the pygmy Akka, or the reverse of all these processes. They may say that, assuming independent development from various anthropoids, such transformism is unnecessary to account for the present state of things; but they can never deny its inherent possibility, for it still remains a very trivial modification compared with the evolution of any given human from any given anthropoid type. Nor will they deny that in general differentiations of this sort are far more easy and explicable than independent growths, which involve so much more fundamentally radical changes. Consequently unorthodox monogenism, that is monogenism not starting from a created pair, but from one evolutionary centre, seems more rational and philosophic than any conceivable form of polygenism. This view seems in other respects to harmonise best with the actual conditions, and an effort has accordingly been made to give it expression in the subjoined definition of species, which differs in some important respects from

those hitherto proposed: *Species is an aggregate of units resembling each other in all salient points, producing offspring of the same type in the same surroundings, or of continuously modified type in continuously modified surroundings, and themselves evolved of previous species similarly modified indefinitely.* Thus any given species or race (terms practically identical when used with scientific precision) exists only for the time being, is not and cannot be permanent, for it has become what it is by slow modification under slowly modified outward conditions, has had a beginning, may have an end. The best vindication of this truth is the geological record, which can only be explained either with Cuvier by the unwarranted assumption of successive fresh creations, or with common sense by regarding type or species as relative, not absolute concepts. Between the two views there seems to be no logical middle term.

It is therefore in this relative sense only that race or species are here to be understood, and in this sense it will be seen that all the three most fundamental types of mankind have existed from the remotest times in the wide area above defined. With their diverse modifications and intercrossings these three types form altogether seven main groups, which it will be convenient to take *seriatim* in the order adopted in the subjoined

General Scheme of Indo-Chinese and Oceanic Races

A.—DARK TYPES

I. NEGRITOS: Aetas; Andamanese; Samangs; Kalangs; Karons.

II. PAPÛANS: { Central branch—Papûans Proper.
Western branch—Sub-Papûans West (so-called “Alfuros”).
Eastern branch—Sub-Papûans East (Melanésians).

III. AUSTRAL: Australians; Tasmanians (?)

B.—CAUCASIAN TYPE (Fair and Brown)

IV. CONTINENTAL BRANCH: Khmêr or Cambodian Group.

V. OCEANIC BRANCH: Indonesian and Sawaiori or Eastern Polynesian Groups.

C.—MONGOLIAN TYPE (Yellow and Olive Brown)

VI. CONTINENTAL BRANCH: Indo-Chinese Group.

VII. OCEANIC BRANCH: Malayan Groups.

A.—DARK TYPES

I. THE NEGRITOS: Aetas; Andamanese; Samangs; Kalangs; Karons

Of the three divisions of this type shown in our scheme the Negrito is probably the most primitive. It seems to have formed the aboriginal element in South-East Asia and Malaysia at a time when the Archipelago was still connected with the mainland; but it is now represented only in a fragmentary way by the wild tribes in the Philippines collectively known as Aetas, Aitas, or Itas, the so-called “Mincopies” of the Andaman Islands, the little-known Samangs of Malacca, probably the Karus or Karons¹ of the Arfak Hills behind Geelvink Bay, New Guinea, and a few surviving members of the Kalangs of East Java. From a number of specimens recently brought to Europe, the osteology of the Aetas and Andamanese has been carefully studied, the former by Virchow in Germany, the latter by Prof. Flower in England, with parallel and in many respects identical results. Virchow² describes the Aetas as “a brachycephalous race differing altogether from the Papuans and Australian Negroes, and no less so from the African Negroes.” He adds that they are “strongly prognathous,” the profile of some

¹ Described by M. Raffray (“Tour du Monde,” April 26, 1879) as essentially distinct from the Papûans. “Ce ne sont pas des Papous, mais bien des Negritos, plus semblables aux sauvages aborigènes des Philippines qu’aux Papous Mélanésiens qui les entourent.”

² In “Correspondenz-Blatt der deutschen Gesellschaft für Anthropologie,” &c., 1872, p. 58.

crania consequently presenting an almost "orang-utan physiognomy." So also Prof. Flower¹ tells us that the Andamanese cranium is "as distinct as possible" from the Melanesian, and on all the available evidence he seems disposed to regard these islanders as "representing an infantile, undeveloped or primitive form of the type from which the African Negroes on the one hand, and the Melanesians on the other . . . may have sprung." The relations of the Negritos to the Papûans, long a vexed question in anthropology, may thus be regarded as finally settled by the most competent authorities. One



FIG. 1.—Ape-like Type, Java. Ardi of Buitenzorg.

doubtless, originally, they must now be regarded as two distinct species in the relative sense involved in our definition of that term. C. Staniland Wake also points out another important feature in which the two races differ. The Papûans proper, and especially the Melanesians of Fiji, New Caledonians and Solomon Islanders, are frequently furnished with well-developed beards, whereas the Andamanese and all other true Negritos, are absolutely beardless. "The absence of the beard seems to be characteristic of all the Negrito peoples, and this trait may in my opinion be safely added to the con-



FIG. 2.—Andamanese Type. Mourning Head-dress.



FIG. 3.—Australian Type. Woman in Mourning.

clusions of de Quatrefages touching the small black races of the Archipelago."²

The ape-like appearance of the Aetas, already spoken of by de la Gironnière, and now insisted on by Virchow, receives a startling illustration from the accompanying portrait (Fig. 1) of a Javanese Kalang named Ardi,

¹ In paper "On the Osteology and Affinities of the Natives of the Andamanese Islands," in *Journal of Anthropological Institute*, November, 1879, pp. 132-3.

² *La barbe considérée comme caractère de races*, in *Rev. d'Anthrop.*, an. 15, 1880.

recently if not still employed as a workman in the famous Buitenzorg (Sans-Souci) Botanic Gardens near Batavia. Here he was seen by C. B. H. von Rosenberg in 1871, and reproduced at p. 569, vol. iii. of that naturalist's work on the "Malay Archipelago" from an original photograph by van Musschenbroek, which has also been



FIG. 4.—Full-blood Papuan Type. North-west Coast New Guinea.

figured on an enlarged scale in Dr. A. B. Meyer's monograph on the "Kalangs of Java." Notwithstanding its startling ape-like appearance all doubt as to the correctness of the portrait is removed by the independent testimony of von Rosenberg and van Musschenbroek, the latter of whom informs me through Prof. Veth of Leyden

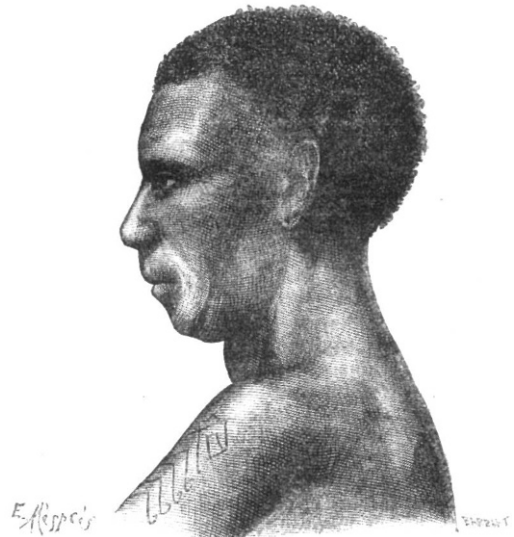


FIG. 5.—Full-blood Papuan Type. North-west Coast New Guinea.

(Letter, October 16, 1880), that "he has met with the same type in other parts of Java, though not so pronounced, and that it could always be traced to a Kalang origin." He adds that "this race is fading away and that the intermixture with Common Javanese has become

such that in most instances only faint traces of the peculiar type have been left." Meyer agrees with van Musschenbroek in regarding the Kalangs as a remnant of the aborigines of Java, possibly allied to the other



FIGS. 6, 7.—Malayo-Papuan Mixed Types. Body-guard of the Sultan of Ternate.

Negrito peoples of the Archipelago, and "occupying Java before it was peopled by the Malays." Ardi had come from the eastern parts of the island, where a few still linger no longer as a distinct tribe, but dispersed, like Ardi himself, amongst the general population. Hence



FIG. 8.—Melanesian Type. Vanikoro Chief.

the reader will doubtless be glad to have this authentic specimen of perhaps the very lowest type of mankind, now all but extinct.

Our next illustration (Fig. 2) is that of an Andamanese

Negrito in a mourning head-dress, from a photograph sent to Europe by Mr. Man, and originally published in the *Anthropological Journal*, vol. vii. (1877) p. 416. It presents a singular resemblance to an Australian woman (Fig. 3) also in mourning, reproduced in the same place



FIG. 9.—A Motu Youth.

from a picture in Angus' "South Australia Illustrated" (plate 51).

The Negrito and Hottentot hair is usually described as growing in separate woolly tufts, or, as Topinard puts it, "in little peppercorn masses, separated by bald spaces." In his "Genealogical Classification" of the Human



FIG. 10.—Maori Type.

Races and Languages" Venzel Krizhek revives the well-known classification of Friedrich Müller which makes this feature the basis of one of the main divisions of mankind, including the Hottentots, Papuans, and Negritos. Yet the phenomenon has absolutely no existence in nature. But such is the tenacity of errors of this sort that

it seems impossible to dispel the delusion, although, as Prof. Flower well remarks, "the report of a committee of the Paris Anthropological Society on the growth of the hair of a Negro in one of the hospitals of that city, published last year (1879) in the *Bulletin* of the Society, ought to set the question at rest for ever." It is curious that evolutionists should have discovered in man a trait which is characteristic of none of the anthropoids.

The Negritos, whether those described by Jagor and Meyer in the Philippines, or those visited by E. H. Man in the Andaman group, are all alike socially on the lowest level. They are all nomadic, though not pastoral, moving about from hill to hill, from coast to river-bank, in search of food or shelter from the weather or their enemies. They live on the fruits and roots of the tropical woodlands, on wild honey, snakes, frogs, fish, or such game as their feeble weapons (mostly spear and bow and arrow) are able to procure them. Yet, although indolent and incapable of providing for the future, they do not lack intelligence, for their brain capacity (index No. 74) is still immensely greater than that of the highest anthropoid ape. The Aetas often acquire a knowledge of the neighbouring Tagalog and Bisayan (Malayan) dialects, and the speech of the Andamanese seems from Man's specimens to belong to a highly agglutinating type. They appear to have no shrines or idols of any sort, in this greatly differing from the Papuans, and their religious thought is limited to a blind awe or fear of the powers of nature, for them doubtless supernatural manifestations. But our knowledge of their inner life is still far too restricted to pronounce very positively on these points. The Negritos are not generally suspected of cannibalism; but the Karons of New Guinea are certainly addicted to the practice. One of them, although quite a youth, admitted to M. Achille Raffray that he had already eaten fifteen men, treating it as quite a matter of course. They appear, however, to confine themselves to the bodies of their enemies slain in battle, and do not regard every stranger as so much "meat," like the Negroes of the Luailaba-Congo.

II. THE PAPUANS: *Papûans proper; Sub-Papûans West ("Alfuros"); Sub-Papûans East (Melanesians)*

The Papûan domain is entirely oceanic, stretching in its widest sense from the island of Floris, Malaysia, eastwards to Fiji (120° – 180° E. long.), and from about the equator southwards to New Caledonia, at this point approaching the Tropic of Capricorn. In our scheme are shown three branches, a central, western, and eastern, which grouping has the convenience of being at once geographical, and to a large extent ethnical. The type

itself, so named from the Malay word *پاپوا* (*papûwah* = frizzly), denoting one of its most striking characteristics, retains everywhere a considerable degree of uniformity in all essentials. But it is largely mixed with two distinct elements, the Malay in the west, the brown Polynesian or Sawaiori in the east. No doubt there are mixtures in New Guinea or the central region also, and notably on the south-east coast, to which the brown Polynesians seem to have penetrated in more recent times. But on the whole the bulk of the New Guinea people, including the adjacent Aru, Waigiu, Salwatty, Mysol, and Ké islanders, may be taken as the most typical branch of the race. The western division, composed of Malayo-Papûans, and often vaguely spoken of as "Alfuros," but whom I name Sub-Papûans West, comprises the Malaysian islands of Floris, Jilolo, Ceram, Buro, Goram, Timor, Wetter, Timor Laut, and neighbouring islets, without prejudice to the question of Papûan blood in Borneo and Célèbes. The eastern division, composed mainly of Sawaiori-Papûans, and whom I name Sub-Papûans East, comprises all the South Pacific Islands grouped as Melanesia. This term, Melanesia, referring to the prevailing black colour

of the natives, is in every way convenient, so that Sub-Papûan East and Melanesian may be taken as practically synonymous. Here the chief groups are the Admiralty, New Britain, New Ireland, Solomon, New Hebrides, New Caledonia, Fiji, and it is to be noted that there are some, possibly many, Melanesians who betray no trace of mixture with the brown Polynesians, and who must consequently be regarded as pure Papûans. Such are the Vanikoro and Mallicolo people in the New Hebrides, and especially the Kai Colos of Viti Levu in Fiji, some specimens of whose crania Prof. Flower has recently shown to be absolutely the most dolichocephalous on the globe. As brachycephaly is a distinctive mark of the Negrito, so dolichocephaly is of the Papûan type. Consequently on this easternmost verge of the Papûan area we would seem to have, as far as is known, the very purest specimen of the race. This harmonises with the view I have ventured elsewhere to express, that the type was developed in a now submerged South Pacific Continent, moving westwards with the gradual subsidence of the land. For a long way east of New Guinea and North-East Australia, in fact quite as far as Samoa, the water is very shallow, averaging probably not more than 500 fathoms.

The accompanying illustrations may be taken as typical specimens of the three great divisions of the Papûan family. Characteristic full-blood Papûan types are those of two members of the Wosaoni tribe, North-West Coast of New Guinea (Figs. 4 and 5), from portraits by M. Raffray, originally figured in the *Tour du Monde*, for April, 1879, p. 267. In Figs. 6 and 7 we have good specimens of the so-called "Alfuros," or mixed Malayo-Papûans of the Archipelago, from sketches by M. Rosenberg, reproduced in his "Malay Archipelago," vol. ii. p. 401. The Vanikoro chief (Fig. 8), from Stanford's "Australasia," p. 476, represents a pure Melanesian head, extremely narrow and high, with long straight, but somewhat broad (platyrrhine) nose and frizzly hair. In this front view the prognathism and dolichocephaly are of course not so perceptible as they would be in profile. The Motu youth (Fig. 9), from Stone's work, "A Few Months in New Guinea" (Sampson Low and Co.), illustrates the sub-Papûan East type, the moppy head being thoroughly Papûan, while the broad face, implying brachycephaly, must be referred to Sawaiori influences. The Motu people occupy a strip of about sixty miles on the south-east coast of New Guinea about Port Moresby, and speak a language of the Sawaiori type, apparently more allied to Samoan than to Malay. O. C. Stone's statement that they reckon up to one million must be received with caution, for the Samoans themselves cannot get beyond 10,000, while the Malays draw the line at 100,000. The familiar Maori (New Zealand) head (Fig. 10), from Stanford's "Australasia," p. 565, seems to support the now generally accepted view that the Maoris are not pure brown Polynesians, but a mixture of Rarotongans (Sawaiori stock) and Melanesians, the former predominating. According to some of their traditions on their arrival, probably some 600 years ago, they found the islands occupied by an aboriginal people, who must have been Melanesians, and who were partly exterminated and partly absorbed.

In point of culture the Papûans take a far higher place not only than the Negritos and Australians, but even than most of the African Negroes. They build houses preferably on piles, cultivate the land with great care and intelligence, are everywhere settled in fixed tribal communities governed by well-understood usages. Alfred R. Wallace, a careful observer of this race, ranks them intellectually higher even than the Malays, accounting for their social inferiority by their less favourable surroundings and remoteness from the civilising influences of more highly-cultured peoples. A very pleasing account is given by Cook of his visit to the New Caledonians, who are generally regarded as an unfavourable branch of the

family. He describes the land about the villages as "finely cultivated, being laid out in sugar-canes, plantations, yams, and other roots, and watered by little rills conducted by art from the main stream, whose source was in the hills. . . . Some roots were baking on a fire in an earthen jar which would have held six or eight gallons; nor did we doubt its being their own manufacture." And further on: "The plantations were laid out with great judgment, and cultivated with much labour." The reference to earthenware is curious, because the Polynesians are generally supposed to be ignorant of the potter's art. But a taste for art in general, and especially for decoration, is one of the most distinguishing features of the Papuans. Their arms, idols, houses, boats, and other objects are often adorned with very tasteful and elaborate designs, and some of their tattooing presents extremely elegant patterns. They have domesticated the pig, dog, and poultry, and they cultivate the yam, sweet potato, banana, sugar-cane, taro, bread-fruit, and mango. Amongst their arms, besides the spear and bow, are the bamboo blowpipe, and flint knives and axes like those of the neolithic age in Europe. Cannibalism seems to be extremely rare in the West and in New Guinea, but until suppressed was universal in New Zealand and Fiji, and is still prevalent in New Britain and many other parts of Melanesia. From this division of the family it seems to have passed to the brown Polynesians, many of whom were formerly addicted to the practice. It reached its climax in Fiji when, shortly before the annexation of these islands to Great Britain, a whole tribe was condemned to be roasted alive and eaten. As they were too numerous to be consumed at one meal, it was arranged that at the annual taro harvest one family should be baked and eaten with that esculent, and the arrangement was scrupulously carried out until the annexation seasonably intervened to save a remnant of the tribe (*De Ricci*).

A. H. KEANE

(To be continued.)

PROF. HUXLEY ON EVOLUTION

AT the meeting of the Zoological Society on December 14, among the papers read was one by Prof. Huxley on the application of the laws of evolution to the arrangement of the vertebrata, and more particularly of the mammalia.

We take the following report of the paper from the *Times* :—

Prof. Huxley began by saying :—There is evidence, the value of which has not been disputed, and which, in my judgment, amounts to proof, that, between the commencement of the Tertiary epoch and the present time, the group of the Equidæ has been represented by a series of forms, of which the oldest is that which departs least from the general type of structure of the higher mammalia, while the latest is that which most widely differs from that type. In fact, the earliest known equine animal possesses four complete sub-equal digits on the fore-foot, three on the hind-foot; the ulna is complete and distinct from the radius; the fibula is complete and distinct from the tibia; there are forty-four teeth, the full number of canines being present, and the cheek-teeth having short crowns with simple patterns and early-formed roots. The latest, on the other hand, has only one complete digit on each foot, the rest being represented by rudiments; the ulna is reduced and partially ankylosed with the radius; the fibula is still more reduced and partially ankylosed with the tibia; the canine teeth are partially or completely suppressed in the females; the first cheek-teeth usually remain undeveloped, and when they appear are very small; the other cheek-teeth have long crowns, with highly complicated patterns and late-formed roots. The Equidæ of intermediate ages exhibit intermediate characters. With respect to the interpretation of these facts, two hypotheses, and only two, appear to be imaginable. The one assumes

that these successive forms of equine animals have come into existence independently of one another. The other assumes that they are the result of the gradual modification undergone by the successive members of a continuous line of ancestry. As I am not aware that any zoologist maintains the first hypothesis, I do not feel called upon to discuss it. The adoption of the second, however, is equivalent to the acceptance of the doctrine of evolution so far as horses are concerned, and, in the absence of evidence to the contrary, I shall suppose that it is accepted.

Since the commencement of the Eocene epoch, the animals which constitute the family of the Equidæ have undergone processes of modification of three kinds: (1) there has been an excess of development of one part of the oldest form over another; (2) certain parts have undergone complete or partial suppression; (3) parts originally distinct have coalesced. Employing the term "law" simply in the sense of a general statement of facts ascertained by observation, I shall speak of these three processes by which the Eohippus form has passed into Equus as the expression of a three-fold law of evolution. It is of profound interest to remark that this law, or generalised statement of the nature of the ancestral evolution of the horse, is precisely the same as that which formulates the process of individual development in animals generally, from the period at which the broad characters of the group to which an animal belongs are discernible onwards. After a mammalian embryo, for example, has taken on its general mammalian characters, its further progress towards its special form is effected by the excessive growth of one part in relation to another, by the arrest or suppression of parts already formed, and by the coalescence of parts primarily distinct. This coincidence of the laws of ancestral and individual development, creates a strong confidence in the general validity of the former, and a belief that we may safely employ it in reasoning deductively from the known to the unknown. The astronomer who has determined three places of a new planet calculates its place at any epoch, however remote; and, if the law of evolution is to be depended upon, the zoologist who knows a certain length of the course of that evolution in any given case, may with equal justice reason backwards to the earlier, but unknown stages. Applying this method to the case of the horse, I do not see that there is any reason to doubt that the Eocene Equidæ were preceded by Mesozoic forms, which differed from Eohippus in the same way as Eohippus differs from Equus. And thus we are ultimately led to conceive of a first form of the equine series, which, if the law is of general validity, must need have been provided with five sub-equal digits on each plantigrade foot, with complete, sub-equal antebrachial and crural bones, with clavicles, and with, at fewest, forty-four teeth, the cheek-teeth having short crowns and simple-ridged or tuberculated patterns. Moreover, since Marsh's investigations have shown that the older forms of any given mammalian group have less-developed cerebral hemispheres than the later, there is a *prima facie* probability that this primordial hippoid had a low form of brain. Further, since the existing horse has a diffuse allantoic placentation, the primary form could not have presented a higher, and may have possessed a lower, condition of the various modes by which the foetus derives nourishment from the parent. Such an animal as this, however, would find no place in any of our systems of classification of the mammalia. It would come nearest to the Lemuroidea and the Insectivora, though the non-prehensile pes would separate it from the former, and the placentation from the latter group.

A natural classification is one which associates together all those forms which are closely allied, and separates them from the rest. But, whether in the ordinary sense of the word "alliance," or in its purely morphological sense, it is impossible to imagine a group of animals more closely